

ABSTRACT OF THE DISCLOSURE

The present invention provides a method, device and catalyst to remove nitrogen oxides contained in the exhaust gas of lean-burn automobiles at a high efficiency.

CO adsorbent component is contained in the exhaust gas cleaning catalyst which captures NO_x when the air-fuel ratio of exhaust gas is higher than theoretical air-fuel ratio and reduces said captures NO_x when the air-fuel ratio of exhaust gas is equal to or smaller than theoretical air-fuel ratio. Said catalyst is placed in the exhaust gas path; said catalyst characterized in that the maximum CO desorption temperature reaches 200 to 220 °C when the temperature is raised in He gas flow at the rate of 5 to 10 °C/min after CO has been adsorbed by saturation at 100 °C; wherein exhaust gas having an air-fuel ratio higher than theoretical air-fuel and exhaust gas having an air-fuel ratio equal to or smaller than theoretical air-fuel ratio are alternately made to flow to said catalyst.

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